DOCUMENT RESUME

ED 479 286 EA 032 654

AUTHOR	Sum, Andrew; Harrington, Paul
TITLE	The Hidden Crisis in the High School Dropout Problems of Young Adults in the U.S.: Recent Trends in Overall School Dropout Rates and Gender Differences in Dropout Behavior.
INSTITUTION	Northeastern Univ., Boston, MA. Center for Labor Market Studies.
SPONS AGENCY	Business Roundtable, Washington, DC.
PUB DATE	2003-02-00
NOTE	55p.; Prepared with Charles Bartishevich, Neeta Fogg, Ishwar Khatiwada, Jacqui Motroni, Sheila Palma, Nathan Pond, Paulo Tobar, Mykhaylo Trub'skyy.
AVAILABLE FROM	Center for Labor Market Studies, Northeastern University, 315 Holmes Hall, Boston, MA 02115. Tel: 617-373-2242; Fax: 617-373-3651; Web site: http://www.rilmitraining.org/clms/clms.htm. For full text: http://www.NUPR.NEU.edu/5-03/ dropout.pdf.
PUB TYPE	Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC03 Plus Postage.
DESCRIPTORS	*Adult Dropouts; Dropout Attitudes; *Dropout Characteristics; *Dropout Rate; Dropout Research; Dropouts; Graduation Rate; High School Graduates; *High School Students; *High Schools; Out of School Youth; Public Schools; Withdrawal (Education)

ABSTRACT

This report examines how successful America's high schools have been in raising high school graduation rates over the past decade and how severe the high school dropout problem actually is. It reviews existing empirical evidence on the school dropout problems of America's youth during the 1990s. It also presents evidence to support the view that some of the more widely cited official government measures of school dropout rates substantially underestimate the number of youth who drop out. The evidence on dropout rates, the report states, is quite mixed and controversial. Specifically, the report examines the following: (1) official and alternative estimates of school dropout rates; (2) dropout rates among young adults; (3) high school dropout rates based on data from the U.S. Department of Education and selected states; (4) annual high school dropout rates in large public school districts; (5) the differences in dropout rates between the behavior of men and women dropouts; and (6) estimates of high school graduation rates with the annual high school diploma data. The text is supplemented by 31 tables, 5 charts, 5 appendices, and 50 footnotes, many of which contain references. (WFA)

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The Hidden Crisis in the High School Dropout Problems of Young Adults in the U.S.: Recent Trends in Overall School Dropout Rates and Gender Differences in Dropout Behavior

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The Business Roundtable
Washington, D.C.

February 2003

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Introduction

During the past few decades, the formal educational attainment and basic academic skills of young adults have become increasingly important determinants of their labor market success.[1] Lifetime earnings advantages of more highly educated men and women have risen considerably since the mid 1970s. Those young adults who fail to complete high school are in the most precarious economic position, facing a bleak economic and social future. The nation's governors recognized the growing economic importance of formal schooling for personal and national economic success in their 1989 educational summit, which led to the establishment of a set of national educational goals, including a 90 percent high school completion rate by 2000.

How successful have America's high schools been in raising high school graduation rates over the past decade? How severe are school dropout problems today? How do the high school dropout problems of the nation's youth vary across gender groups and across states and large local school districts? This research paper is designed to provide answers to these very important questions. We will review existing empirical evidence on the school dropout problems of America's youth over the 1990s with particular emphasis on differences in dropout rates between men and women. The evidence on dropout rates is quite mixed and controversial. There are a variety of alternative measures and data sources on school dropout problems with widely varying estimates of the incidence of school dropout problems in the U.S.[2] We will present substantial evidence to support the view that some of the more widely-cited official government measures of school dropout rates in the U.S., especially the status dropout rates of the U.S. Department of Education based on the CPS household survey, substantially underestimate the number of youth who leave our nation's high schools without obtaining a regular high school diploma. Other data sources, including the U.S. Department of Education's

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[1] The severe labor market difficulties of young high school dropouts in the U.S. are assessed in detail in the following monograph. See: Andrew Sum, Neeta Fogg, and Garth Mangum, Confronting the Youth Demographic Challenge: The Labor Market Prospects of Out-of-School Young Adults, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, October 2000.

[2] See: Duncan Chaplin, "Tassels on the Cheap: The GED and the Falling Graduation Rate," Education Next, Fall 2002, pp. 24-29; (ii) Jay P. Greene, High School Graduation Rates in the United States, Center for Civic Innovation at the Manhattan Institute, New York City, November 2001; (iii) Phillip Kaufman, The National Dropout Data Collection System: Assessing Consistency, MPR Associates, Paper Prepared for Achieve and the Harvard Civil Rights Project, January 2001; (iv) June Kronho, "Politics and Policy: Various Ways of Calculating Dropout Rate Leaves Subject Open to Much Interpretation," The Wall Street Journal, December 18, 2001.

data on school dropouts from the Common Core of Data and on actual diplomas awarded to graduates, are preferable guides to actual dropout problems in the U.S.

Our best estimates indicate that somewhere between 25 and 30 percent of America's teenagers, including recent immigrants, fail to graduate from high school with a regular high school diploma and that the incidence of such dropout problems has not diminished over the past 20 years. High school dropout problems tend to be more severe among men than among women in both the nation and in every state and large public school district. These dropout problems also vary widely across states and large public school districts and are greater among Blacks and Hispanics than among Whites. Many of the nation's large central cities are confronted with particularly acute high school dropout problems. The high influx of young adult immigrants with limited formal schooling from their own countries has exacerbated the dropout problems of the nation.

The high incidence of dropout problems among young men is a major factor contributing to below average rates of college attendance and degree attainment among them. To reduce the large and growing educational gaps between the nation's young men and women, a much higher fraction of men must graduate from high school and acquire a solid base of core academic and critical thinking skills while in high school. There is a hidden dropout crisis in America's high schools that must be immediately acknowledged and addressed by national, state, and local policymakers if the nation is to achieve important educational and economic goals in the twenty-first century. The time for action is now!

Estimates of the Annual Number of School Dropouts from the October CPS Surveys

As noted in the preceding section, there are a variety of methods and data sources that can be used to measure school dropout rates or high school graduation rates at the local, state, and national level. One of the data sources on the annual number of school dropouts used by the U.S. Department of Education and other educational researchers to estimate national "event dropout rates" is that provided by the October Current Population Survey (CPS), a national household survey involving interviews with a sample of approximately 60,000 households that is

administered by the U.S. Census Bureau.[3] The monthly CPS results also are used by the U.S. Bureau of Labor Statistics to estimate the size of the nation's civilian labor force, its employed and unemployed populations, and the national unemployment rate. In conducting the October CPS survey, the U.S. Census Bureau asked a supplementary set of questions on the current school enrollment status of all household members (3 three and older), the high school graduation status of respondents 16 and older, the year during which they graduated, and, for school leavers lacking diplomas, the date of their last attendance in a regular school.[4] The U.S. Bureau of Labor Statistics and the U.S. Department of Education use findings of the October CPS surveys to estimate the numbers of new high school dropouts and graduates between the ages of 16 and 24 years.[5] We have analyzed the BLS annual reports on the estimated numbers of new 16-24 year old high school dropouts and their gender characteristics for the years 1988-89 to 2000-2001. Key findings of our analysis are displayed in Tables 1 and 2 and Chart 1.[6]

Estimates of the annual number of 16-24 year old school dropouts in the U.S. over the past 13 years are displayed in Table 1. The annual number of dropouts ranged from a low of 380,000 (1990-91) to a high of 604,000 in 1994-95. Over the past five years, the estimated national number of school dropouts has fluctuated over a fairly narrow range, i.e., 502,000 to 524,000, with an average of 510,000 dropouts per year. To convert these dropout estimates into a set of "event dropout rates," we divided the annual number of dropouts by the combined number of public and private high school students in grades 9-12 in each school year.[7] The annual dropout rates over this thirteen-year period ranged from 3.0 percent to 4.5 percent. (Table

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[3] For a review of the differences between "event" dropout rates, "status" dropout rates, and dropout estimates based on longitudinal surveys of youth, See: (i) Goal 2 Work Group, Office of Educational Research and Improvement, U.S. Department of Education, Reaching the Goals: Goal 2, High School Completion, U.S. Government Printing Office, Washington, D.C., 1993; (ii) Phillip Kaufman, The National Dropout Data Collection System: Assessing Consistency, MPR Associates, Paper Prepared for Achieve and the Harvard Civil Rights Project, January 2001.

[4] For a review of the dropout measures and findings from the October 2001 CPS survey, See: U.S. Bureau of Labor Statistics, College Enrollment and Work Activity of 2001 High School Graduates, Washington, D.C., May 14, 2002.

[5] The National Center for Education Statistics uses the October CPS data on school dropouts in a slightly different manner to calculate event dropout rates. They identify all 15-24 year olds who dropped out of grades 10 through 12 and divide by the number of youth enrolled in grades 10 through 12. See: Phillip Kaufman, Martha Naomi Alt, and Christopher Chapman, Dropout Rates in the United States: 2000, National Center for Education Statistics, Washington, D.C., November 2001.

[6] The data on school dropouts pertain to those youth who left school sometimes between October of the preceding calendar year and October of the year of the survey. Dropout estimates of BLS are restricted to 16-24 year olds.

[7] As discussed in an earlier footnote, the National Center for Education Statistics includes 15 year old dropouts in their numerator and their denominator includes only students in grades 10 through 12. Thus, their "event dropout rates" are higher than ours. For example, their event dropout rate for October 2000 was 4.8 percent versus our 3.5 percent estimate.

1, Column E). Over the last six years, these annual dropout rates have been quite stable, ranging from 3.4 percent to 3.6 percent, with an average of 3.5 percent. (Chart 1). An annual dropout rate of 3.5 percent for each high school class (grades 9-12) would yield an overall graduation rate of 86.7 percent, or a cumulative dropout rate of 13.3 percent.[8]

Table 1:
Estimates of the Annual Number of School Dropouts in the U.S.,
Total and as a Percent of the Number of Students Enrolled in Public and
Private High Schools, 1988-89 to 2000-2001 School Years

	(A)	(B)	(C)	(D)	(E)
School Year	Dropouts	Public Enrollment	Private Enrollment	Public and Private Enrollment	Ratio of Dropouts to High School Students
1988-89	446	11,687	1,206	12,893	3.5%
1989-90	405	11,390	1,193	12,583	3.2%
1990-91	380	11,338	1,137	12,475	3.0%
1991-92	406	11,541	1,125	12,666	3.2%
1992-93	399	11,735	1,163	12,898	3.1%
1993-94	510	11,961	1,191	13,152	3.9%
1995-95	604	12,213	1,236	13,449	4.5%
1995-96	496	12,500	1,197	13,697	3.6%
1996-97	502	12,847	1,297	14,144	3.5%
1998-99	524	13,191	1,327	14,518	3.6%
1999-00	515	13,375	1,339	14,714	3.5%
2000-01	506	13,505	1,352	14,847	3.4%

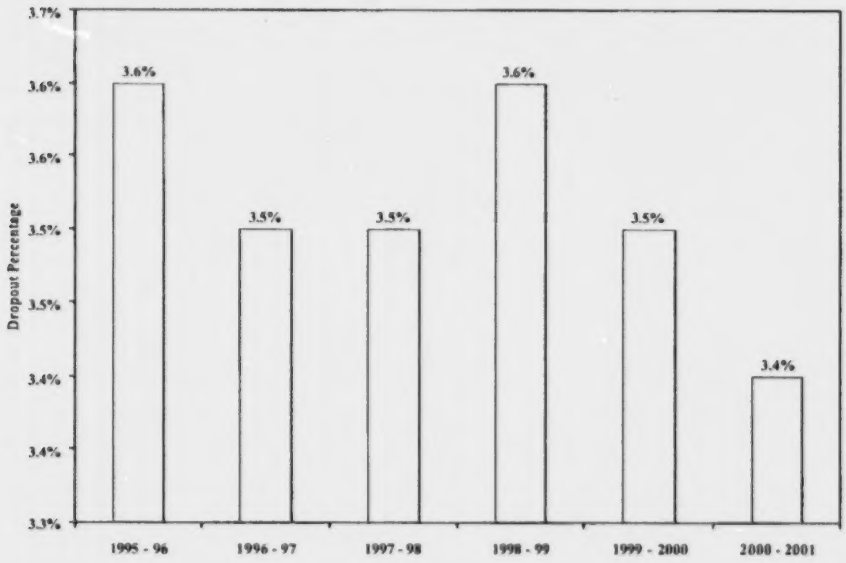
Sources: (i) U.S. Bureau of Labor Statistics, estimates from the October CPS survey; (ii) Digest of Education Statistics, 2000, Table 3, p. 12.

Notes: (1) Public and private secondary school enrollment figures for years 1999 and 2000 are projections;

(2) Private secondary school enrollment levels for years 1989, 1991-1994, and 1996 are estimates.

[8] These dropout rate estimates, however, exclude youth leaving school before age 16 and immigrants who never attended school in the United States. The latter group is quite sizable.

Chart 1:
Annual Number of School Dropouts as a Percent of the Number of Students Enrolled in Public and Private High Schools, U.S.: 1995–1996 to 2000–2001
(in Percent)



For a variety of reasons, we believe that the annual estimates of school dropouts from the October CPS surveys are biased downward to a considerable degree. For example, while the October 1998 CPS estimate of the number of school dropouts was 505,000, our estimate based on administrative data sources on school dropouts from state departments of education and imputations from other data sources is closer to 850,000, or nearly 70 percent higher than the CPS estimate.[9] The methods, data sources, and assumptions underlying our alternative estimate are described in detail in Appendix A. The October CPS estimates of high school dropouts are biased downward for a number of important reasons, including biases in reporting of school dropouts by proxy respondents, especially the mothers of these dropouts, the exclusion of all youth in institutions (jails, prisons, juvenile homes, homes for teen mothers, long stay hospitals) from the CPS surveys, and the high fractions of young adults, especially men ages 17-24, who

[9] Our estimate of 846,000 school dropouts across the nation during the 1997-98 school year is based on official school dropout numbers from 37 reporting states and the District of Columbia, an imputed number of school dropouts for the 14 non-reporting states, an imputed number of private school dropouts and an adjustment to the count of high school dropouts to reflect those students who leave school before completing 9th grade. The imputation procedure for the 14 non-reporting states is based on the assumption that their share of high school dropouts was proportional to their share of public high school graduates from the class of 1997. This assumption is a conservative one.

are missed by the CPS household survey.[10] The sharply lower coverage rates of young men, especially Blacks, likely contribute to the artificially low estimates of school dropouts from the October CPS surveys.[11]

The October CPS estimates of new school dropouts also provide information on the age, gender, and race-ethnic characteristics of the youth dropping out of school before receiving a high school diploma. For four of the past five years, the estimated number of males dropping out of junior high or high school before receiving a diploma exceeded the number of women. (Table 2). For these four years, the number of men dropping out of school per 100 women ranged from 104 in 1998 to 144 in 2001. The median values for dropouts by gender in these five years yields a ratio of 131 men per 100 women. Because men are much more likely to be institutionalized than women and, thus, not interviewed by the CPS survey and are much less likely to be covered by the CPS survey than women, we believe that the true national ratio of male dropouts to female dropouts is even higher than that produced by the CPS survey.[12] Findings on the gender characteristics of high school dropouts produced by state departments of education in recent years provide empirical support for this assertion. These findings will be presented in a following section of this research report.

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[10] For concerns over the accuracy of proxy responses to the October CPS survey on dropouts and biases from under-coverage, See: (i) Duncan Chaplin, "Tassels on the Cheap: The GED and the Falling Graduation Rate", Education Next, Fall 2002, pp. 24-29; (ii) Phillip Kaufman, op.cit.

[11] The estimated under-coverage rate for 15-19 year old men in the 1999 CPS survey was 13.3 percent and it rose to nearly 20 percent for 20-24 year old men. For Black male 20-24 year olds, the under-coverage rate was closer to 30 percent. See: U.S. Bureau of the Census, Current Population Reports, Consumer Income, Series P60-210, Poverty in the United States: 1999, U.S. Government Printing Office, Washington, D.C., September 2000. It should be noted that the U.S. Census Bureau adjusts its sample results for under-coverage, but the assumptions underlying the adjustment procedures clearly bias downward all estimates of school dropouts since it is assumed that the educational attainment of persons found in the CPS survey are the same as those who were missed in each age/race group.

[12] In 1990, at the time of the decennial Census, the number of males between the ages of 15 and 19 who were institutionalized was five times as high as the number of women.

Table 2:
Estimated Number of New High School Dropouts[1]
16-24 Years Old in the U.S. by Gender 1997-2001
(Numbers in 1000s)

Year	(A) Men	(B) Women	(C) Men per 100 women
1997	289	213	136
1998	257	248	104
1999	243	281	86
2000	295	220	134
2001	298	207	144
Five Year Average	276	233	119
Median Values	289	220	131

Note: [1] High school dropouts refer to the number of persons who dropped out of school between October of year noted and the previous October.

Source: U.S. Department of Labor, Bureau of Labor Statistics, College Enrollment and Work Activity of High School Graduates, Annual publications, 1998 to 2002.

Alternative Estimates of Status Dropout Rates Among Young Adult Men and Women

A second set of annual measures of school dropout rates can be produced with the use of the October CPS survey data. One such measure is the "status dropout rates" of the U.S. Department of Education.[13] Estimates of status dropout rates for the nation's 16-24 year old civilian non-institutional population for selected years from 1990 to 1999 are displayed in Table 3.[14] The status dropout rate measures the percent of the 16-24 year old population that is not enrolled in school and lacks a high school diploma or a GED certificate. The status dropout rates for the 1990s varied within a very narrow interval, ranging from lows of 11 percent to highs of 12 percent. There was no long-term trend either downward or upward in these dropout rates over the decade. For each year, the estimated status dropout rate of men was higher than that for women, with the size of these gender gaps widening at the end of the decade. The dropout rates for men were 1.4 to 3.0 percentage points higher than those of women from 1997 to 1999.

[13] The National Center for Education Statistics has produced estimates of "status dropout rates" in their recent annual reports on national dropouts. See: Phillip Kaufman, Naomi Alt, and Christopher Chapman, Dropout Rates in the United States: 2000, pp. 11-16.

[14] The universe for the CPS survey is the civilian non-institutional population, which excludes all inmates of institutions, the homeless, and members of the nation's armed services.

Table 3:
High School Dropouts[1] 16–24 as a Percent of the 16–24 Year Old
Civilian Noninstitutional Population, Total and by Gender, Selected Years, 1990 to 1999

Year	(A) All	(B) Men	(C) Women	(D) Men – Women
1990	12.1	12.3	11.8	+.5
1992	11.0	11.3	10.7	+.6
1993	11.0	11.2	10.9	+.3
1995	12.0	12.2	11.7	+.5
1996	11.1	11.4	10.9	+.5
1997	11.0	11.9	10.1	+1.8
1998	11.8	13.3	10.3	+3.0
1999	11.2	11.9	10.5	+1.4

Source: U.S. Department of Education, Digest of Education Statistics, 2000.
Note: [1] High school dropouts exclude GED certificate holders in this table.

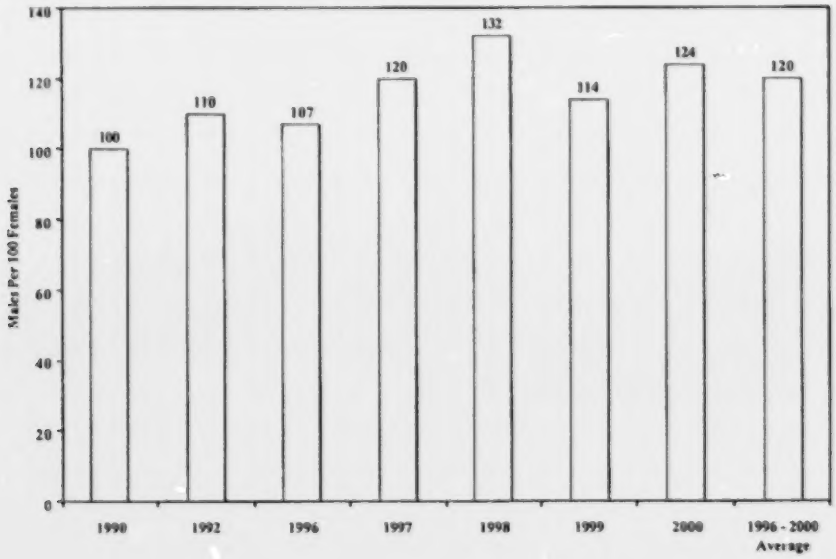
We have identified separately the estimated total number of 18-24 year old dropouts by gender in October of selected years from 1990 to 2000. Again, these dropout statistics exclude youth who left school without a regular high school diploma but went on to obtain a GED certificate or another alternative high school credential. In 1990, the estimated numbers of male and female dropouts were identical at 1.69 million for each gender group. (Table 4). For all following years, the estimated number of male dropouts exceeded the number of women, with the gaps widening fairly considerably during the latter half of the decade. (Table 4 and Chart 2). From October 1996 through October 2000, the number of young male dropouts per 100 female dropouts ranged from 107 to 132, with an average of 120 men per 100 women.

Table 4:
Estimated Numbers of 18-24 Year Old High School Dropouts[1] by Gender in the U.S., Selected Years, October 1990 to October 2000
(in 1000s)

Year	(A) Men	(B) Women	(C) Men per 100 Women
1990	1,689	1,690	100
1992	1,617	1,466	110
1996	1,628	1,519	107
1997	1,765	1,471	120
1998	2,018	1,526	132
1999	1,818	1,594	114
2000	1,837	1,478	124
Average, 1996–2000	1,813	1,517	120

Note: [1] High school dropouts exclude individuals who did not receive a regular high school diploma but obtained a GED certificate.
Source: October CPS surveys, U.S. Census Bureau.

Chart 2:
Estimated Number of 18- to 24-Year Old Men Who Were High School Dropouts Per 100 Women, Selected Years, October 1990 to October 2000 and 1996–2000 Average



To identify the existence of variations in the gender dropout ratios across race-ethnic groups, we analyzed the findings of the October CPS surveys for 1998, 1999, and 2000 and

calculated three year averages for Blacks, Hispanics, and White, non-Hispanics. For all 18-24 year olds over this three-year period, there were 123 male dropouts for every 100 women. (Table 5). The gender ratios ranged from 108 per 100 among Blacks to a high of 143 per 100 among Hispanics, the nation's fastest growing race-ethnic group. In every race-ethnic group, there were more male than female dropouts.

Table 5:
Estimated Numbers of 18-24 Year Old High School Dropouts[1] by
Gender and by Race-Ethnic Group, U.S.: Three Year Averages, October 1998 – October 2000
(Numbers in 1000s)

	(A)	(B)	(C)
Race-Ethnic Group	Men	Women	Men per 100 Women
All	1,891	1,532	123
Black	323	300	108
Hispanic	795	557	143
White, not Hispanic	748	648	115

Source: October 1998, 1999 and 2000 CPS surveys, U.S. Census Bureau.
Note: [1] High school dropouts exclude those who left high school before receiving a high school diploma but obtained a GED certificate.

Critiques of the Status Dropout Rates of the U.S. Department of Education

The status dropout rates for the nation's 16-24 year olds as estimated by the U.S. Department of Education with the CPS data are characterized by a number of measurement and technical shortcomings that severely limit their usefulness as true measures of the nation's dropout rates. For all of the reasons cited below, we believe that they are substantially biased downward as a measure of the true dropout rate among the nation's young adults.

First, the denominator for the status dropout rates consists of all 16-24 year olds in the nation's civilian, non-institutional population, including students who are still enrolled in high school. A number of these high school students will eventually drop out of high school, especially those 18 and older who are two or more years older than their peers in the same grade. National and local research on school dropout behavior has repeatedly found that youth who are above age for students in their high school grade are considerably more likely to drop out of high

school.[15] The numerator for the status dropout rate is, thus, artificially low since it excludes future dropouts from this age cohort.

Second, the U.S. Department of Education counts youth with a GED credential as high school graduates rather than dropouts. Between eight and nine percent of 18-24 year olds hold a GED certificate. A number of educational and labor market researchers have shown that the GED is not equivalent to regular high school diplomas in its impacts on wages, employment, annual earnings, and post-secondary educational attainment.[16] It should also be noted that a growing number of studies have found some positive impacts of obtaining a GED credential relative to not doing so, both in terms of labor market and educational outcomes.[17] High school dropouts with GEDs, however, are considerably less likely to complete some post-secondary schooling than youth with high school diplomas.[18] For example in a 1997 study of young adult male and female GED and regular high school diploma holders, Murnane, Willett, and Boudett found that only 14 percent of male GED holders had completed one or more years of college versus 49 percent of those with a regular high school diploma, and only 19 percent of young

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[15] For research findings on the role of being behind modal grade and being older than average in influencing the dropout behavior of high school students, See: (i) Andrew Hahn and Jacqueline Danzberger, Dropouts in America: Enough Is Known for Action, Institute for Educational Leadership, Washington, D.C., March 1987; (ii) Ruth Neild and Scott Stoner-Eby, Connecting Entrance and Departure: The Transition to Ninth Grade and High School Dropout, University of Pennsylvania, Philadelphia, 2001; (iii) Philip Gleason and Mark Dynarski, Do We Know Whom to Serve: Issues in Using Risk Factors to Identify Dropouts, Mathematica Policy Research, Princeton, June 1998.

[16] For criticisms of the labor market and educational value of the GED credential,
See: (i) Duncan Chaplin, "Tassels on the Cheap...;" (ii) Stephen V. Cameron and James J. Heckman, "The Nonequivalence of High School Equivalents," Journal of Labor Economics, Vol. 11, No. 1, 1993, pp. 1-47; (iii) Jay P. Greene, High School Graduation Rates in the United States...

[17] For a review of other studies finding mixed or favorable findings for GED recipients;
See: (i) D. Doesel, N. Alsalam, and T.M. Smith, Educational and Labor Market Performance of GED Recipients, Office of Educational Research and Improvement, U.S. Department of Education, Washington, D.C., 1998; (ii) Kathryn Parker Boudett, Richard J. Murnane, and John B. Willett, "Second-Chance Strategies for Women Who Drop Out of School," Monthly Labor Review, December 2000, pp. 19-31; (iii) John H. Tyler, Richard J. Murnane, John B. Willett, Estimating the Impacts of the GED on the Earnings of Young Dropouts Using A Series of Natural Experiments, National Bureau of Economic Research, Cambridge, February 1998.

[18] Obtaining a GED does provide access to post-secondary educational opportunities, but post-secondary schooling completion by GED holders is quite limited. An analysis of NLSY data by Boudett, Murnane, and Willett found that by age 29 only 23 percent of female GED recipients had completed at least one year of college and only 3 percent had acquired an Associate's degree. Each year of completed post-secondary schooling did, however, raise expected annual earnings by $1,153.
See: Kathryn Boudett, Richard Murnane, and John Willett, op cit.

women with a GED had completed some college versus 50 percent of their counterparts with a regular high school diploma.[19]

Third, the status dropout measures exclude members of the institutional population who are known to have extraordinarily high dropout rates. At the time of the 1990 Census, there were nearly 327,000 18-24 year olds who were inmates of institutions, of whom 90 percent were males, many of whom were in jails or prisons. The 2000 Census population numbers will certainly be larger, given the rise in the jail and prison inmate populations during the past decade. The educational attainment of most inmates of jails and prisons is quite low. The 1992 National Adult Literacy Survey included interviews with a sample of more than 1,000 inmates of federal and state prisons.[20] The survey found that 49 percent of the estimated population of prison inmates had no regular diploma or GED and that another 17 percent only had a GED; thus, two-thirds of the nation's prison inmates lacked a regular high school diploma. A 1991 Bureau of Justice Statistics survey of state prison inmates revealed that 41 percent of the inmates lacked both a diploma and a GED certificate, and it is quite likely that a majority of them lacked a regular high school diploma.[21]

A 1996 U.S. Bureau of Justice Statistics survey of jail inmates found that only 54 percent of jail inmates held a high school diploma or a GED certificate. Our analysis of unpublished data from the 1996 Survey of Jail Inmates and the 1997 Surveys of Federal and State Prison Inmates revealed that there were 372,665 jail and prison inmates under the age of 25.[22] Of this group, 298,700 or 80 percent lacked a regular high school diploma.[23] Since males dominated the state prison population (95 percent) in 1991 and jail inmates (90 percent) in 1996, the exclusion

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[19] Their findings are based on the NLSY longitudinal surveys and track educational outcomes of respondents through age 26. See: Richard J. Murnane, John B. Willett, and Kathryn Parker Boudett, "Does A GED Lead to More Training, Post-Secondary Education, and Military Service for School Dropouts?," Industrial and Labor Relations Review, Vol. 51, No. 1, 1997, pp. 100-115.

[20] For a review of the educational backgrounds of the sample of inmates from federal and state prisons in 1992, See: Karl O. Haigler, Caroline Harlow, et.al., Literacy Behind Prison Walls: Profiles of the Prison Population from the National Adult Literacy Survey, U.S. Government Printing Office, Washington, D.C., 1994.

[21] See: U.S. Department of Justice, Bureau of Justice Statistics, Criminal Offenders Statistics, BJS web site, download on 9-17-2002.

[22] These data were provided to the authors by employees of the U.S. Bureau of Justice Statistics in Washington, D.C.

[23] Nearly 90,000 members of this group were reported to possess a GED certificate. If this estimate is correct, this would imply that a very high fraction of young GED holders were in jail or prison in 1996-97.

of the institutionalized population from the dropout statistics has a much greater impact on estimated dropout rates for men than women.

Finally, the CPS household survey suffers from above average under-coverage rates for young adult groups that are larger for men than for women and are especially large for young Black men, 20-29 years old. (Table 6). Under-coverage rates measure the relative number of persons in an age group who were missed by the U.S. Census Bureau interviewers during the monthly surveys.[24] Under-coverage rates for all 20-24 year old men in 1999 was reported by the U.S. Census Bureau to be 19 percent versus 14 percent for women and nearly 30 percent among young Black men. Between January and April 1996, the average monthly coverage ratios of 20-29 year old men were estimated to be 84 percent for White males but only 75 percent for Hispanics and 66 percent for Blacks.[25] Since men and women who are missed by the CPS survey are likely to be less well educated, the weighting process used by the U.S. Census Bureau to adjust for under-coverage rates will underestimate the true number of high school dropouts.

Table 6:
CPS Under-Coverage Rates by Age and Gender, and by Race for Males, 1999

Age Group	(A) All Men	(B) All Women	(C) Non-Black Men	(D) Black Men
15 – 19	.133	.116	.136	.115
20 – 24	.192	.141	.177	.293
25 – 29	.150	.097	.137	.245

Source: U.S. Census Bureau, Poverty in the U.S.: 1999, "Table C-2."

For all of the above reasons (undercounting of future dropouts among current high school students, the counting of GED holders as "high school graduates," the exclusion of the noninstitutional population, the under-coverage rates of young adults, and response bias in reporting high school graduation status), we believe that the estimated status dropout rates of the U.S. Department of Education are much too low as measures of the true dropout rates among the

[24] Either the person was missed in recording all resident members of the household in which he or she lived or their household was missed by the U.S. Census interviewer. Homelessness and other housing problems also contribute to the under-coverage rates of a number of these groups.

[25] See U.S. Bureau of Labor Statistics and U.S. Census Bureau, Current Population Survey: Design and Methodology, Technical Paper 62RV, Washington, D.C., 1997.

nation's young adults in recent years. To begin to address a number of the deficiencies in the existing status dropout measures, we analyzed existing CPS data from 1997 to 1999 on the numbers of 18-29 year olds who lacked a regular high school diploma. Between October 1997 and 1999, the number of 18-29 year old men who lacked a regular high school diploma ranged from 4.5 to just under 4.8 million. (Table 7). The average "dropout rate" of these men over this three-year period was equal to 22.1 percent (Table 8). About one-third of these young male dropouts claimed that they held a GED certificate. The number of young adult women lacking a regular high school diploma over this three year period ranged from 4.07 to 4.26 million (Table 7). Between 19 and 20 percent of all young women 18-29 years old lacked a regular high school diploma in the late 1990s. Overall, the "school dropout rates" for these 18-29 year old men and women were nearly twice as high as those of the U.S. Department of Education's status dropout rates for 16-24 year olds.

Table 7:
Numbers of 18-29 Year Old Male and Female High School Dropouts[(1)] and GED Holders in the U.S., Selected Years 1997-1999 (in 1000's)

	Male			Female			
	(A)	(B)	(C)	(A)	(B)	(C)	
Year	Dropouts	GED Holders	Total	Dropouts	GED Holders	Total	Men Per 100 Women Dropouts/ No GED
1997	2,990	1,507	4,497	2,526	1,550	4,076	118
1998	3,213	1,571	4,784	2,423	1,750	4,173	132
1999	2,983	1,644	4,627	2,593	1,670	4,263	115

Sources: U.S. Department of Education, National Center for Education Statistics.
Note: [(1)] Findings exclude persons still enrolled in high school at the time of the CPS surveys.

Table 8:
Per Cent of 18-29 Year Old Men and Women Who
Lack a Regular High School Diploma, U.S., 1997 to 1999
(Annual Averages)

	Men			Women		
	(A)	(B)	(C)	(A)	(B)	(C)
Year	No diploma or GED	GED	Dropouts and GED Holders	No diploma or GED	GED	Dropouts and GED Holders
1997	14.3	7.2	21.5	11.8	7.2	19.0
1998	15.2	7.4	22.6	11.2	8.1	19.3
1999	14.3	7.9	22.2	11.9	7.6	19.5

Source: U.S. Department of Education, National Center for Education Statistics, tabulations by authors.

Note: Findings exclude those persons still enrolled in high school at the time of the survey.

Of those 18-29 year old men and women who lacked both a high school diploma and a GED certificate, the number of men exceeded the number of women by fairly large margins from 1997 through 1999. The number of male dropouts with no diploma or GED certificate per 100 women ranged from 115 to 132, with an average of 122 men per 100 women. (Table 7). The actual true ratio of male to female dropouts is undoubtedly even higher than this because the dropout estimates exclude all dropouts from institutions that are dominated by males and are based on higher under-coverage ratios for men than women. Young adults missed by the CPS survey, including race-ethnic minorities and undocumented immigrants, are likely to contain a disproportionate share of high school dropouts.

As noted above, the October CPS survey data only pertain to members of the civilian, non-institutional population. All inmates of institutions (jails, prisons, long-stay hospitals), members of the nation's armed services, and the homeless, including those living in shelters, are excluded from the scope of the survey. At the time of the 1990 Census, there were nearly 630,000 adults 18-29 years old who were inmates of institutions of whom nearly 90 percent were men. Male inmates represented 2.5 percent of the entire population of 18-29 year old men in the U.S. at the time of the 1990 Census. In 2000, the number of male inmates was likely equal to

slightly more than three percent of the 18-29 year old male population.[26] Given an expected school dropout rate of at least 50 percent for this group, their inclusion in the dropout estimates would have raised the male dropout rate by nearly another percentage point to 23.1 percent in October 1999.

The CPS survey does not interview inmates of jails and prisons, members of the armed services living in barracks or other military quarters, or the homeless, including those in shelters for the homeless. While young jail and prison inmates contain a disproportionate share of dropouts and many of the homeless are poorly educated, the armed services recruit relatively few adults without a regular high school diploma. To identify the combined effects of the exclusions of these three groups from the CPS sampling universe on the likely dropout rates of young adults (18-24), we examined available data from multiple sources on the educational characteristics of these three groups of young adults (Table 9).

Table 9:
Estimated Numbers and Educational Characteristics of Young Adults (Under 25) in Jails, Prisons, the Armed Services, and Among the Homeless Population, U.S.: Selected Years

Group	(A) Number of Young Adults Under 25	(B) Number with No Regular High School Diploma	(C) Percent with No Regular Diploma
Local jail and state and federal prison inmates	372,665	298,700	80.1%
Activity Duty Military Personnel, 2001	589,000	46,530	7.9%(1)
Homeless population 1996 survey (typical week estimate)	101,040	45,470	45.0%(2)
Total, Above Three Groups	1,062,700	390,700	36.8%

Notes: (1) This ratio represents the share of all active duty military personnel who lacked a regular high school diploma in 2001.
(2) This ratio is based on the entire population of homeless with an assumption that one-fifth of those with a diploma or its equivalent have a GED.

Sources: (i) U.S. Bureau of Justice Statistics, Characteristics of Jail and Federal and State Prison Inmates, 1996 and 1997 surveys;
(ii) U.S. Department of Defense, Selected Manpower Statistics, FY 2001;
(iii) The Urban Institute, "America's Homeless II: Populations and Services".

[26] Data on the national institutional population by detailed age group from the 2000 Census are not yet available. For 18-64 year old males, however, the number of inmates rose for 1.258 million to 1.772 million a rise of 41 percent between 1990 and 2000.
See: U.S. Census Bureau, American Fact Finder, web site, 2002.

In 1996/97, there were nearly 373,000 young adults under age 25 who were inmates of jails or federal/state prisons. According to estimates provided by the U.S. Bureau of Justice Statistics, approximately 299,000 of these inmates (men and women combined) lacked a regular high school diploma. Thus, eight of every ten young jail and prison inmates failed to graduate from high school with a regular diploma. Data on the number and age characteristics of active duty military personnel in 2001 provided by the U.S. Defense Department revealed that there were 589,000 young adults under 25 serving in a branch of the nation's armed services. Approximately eight percent of these military personnel or 46,500 lacked a regular high school diploma. Estimates by The Urban Institute of the number of homeless in the nation during a typical week in 1996 were combined with estimates of the age and educational attainment characteristics of the homeless from the 1996 National Survey of Homeless Assistance Providers and Clients to generate estimates of the number of homeless persons under age 25 and their dropout status. Our estimates indicate that approximately 45 percent of the homeless under the age of 25 lacked a regular high school diploma.[27]

Combining the size of the young adult population in these three groups and the estimated numbers lacking a regular high school diploma, we estimate that approximately 37 percent of the members of these three groups lacked a regular high school diploma, nearly double the size of the 18-24 year olds in the civilian noninstitutional population. The institutional and homeless populations that are not captured by the CPS household surveys clearly contain a disproportionate share of young adults who failed to secure a regular high school diploma. Their exclusions from the CPS universe clearly lowers the estimated dropout rate among young adults while the exclusion of armed forces raises the estimated dropout rate. The net effect of the exclusion of all three groups is to lower the estimated dropout rate among young adults by approximately one percentage point.

The impacts of the relatively high under-coverage rates of young adults, especially minority males, on estimated dropout rates from the CPS survey are more difficult to quantify due to the lack of an objective data base on the educational characteristics of those under-

[27] The survey of the homeless did not distinguish GED holders from those possessing a regular high school diploma. We assumed that 20 percent of the homeless reporting a diploma or its equivalent actually held a GED certificate.

counted.[28] Given the precarious housing and employment conditions of those not covered by the CPS surveys and the above average fractions of Black and Hispanic men who are missed, it is very likely that dropouts are heavily over-represented among their ranks, especially among men. We have conducted a simple simulation exercise in which we first estimated the percentage distribution of 18-29 year old men by their CPS coverage status and then assigned a 50 percent dropout rate for those not captured by the survey, a dropout rate that is somewhat more than twice as high as that estimated for all young men covered by the survey. (Table 10). Approximately 17 percent of all 18-29 year old men were not covered by the CPS surveys in 1999 with under-coverage ratios highest for 20-24 year olds and for Blacks. Weighting the dropout rates for both groups of men by their respective shares of the 18-29 year old population in 1999 yields an overall dropout rate for men of just under 27 percent.

Table 10:
Estimating the Percent of 18-29 Year Old Men in the U.S. Lacking a Regular High School Diploma by Adjusting for the Under-coverage Rates of Males in the CPS Survey: 1999

Coverage Status of Males	(A) Percent of Men in Group	(B) Dropout Rate of Group	(C) Contribution to Overall Male Dropout Rate
Covered by CPS	83	22%	18.3%
Not covered by CPS	17	50%	8.5%
Total	100		26.8%

Even this dropout estimate is somewhat optimistic since it assumes that there is no upward bias in the CPS reporting of high school graduation status by young men and women or their proxy respondents. Even a modest upward bias of two to three percentage points would push the "dropout rate" for the nation's young men at the end of the 1990s to close to 30 percent.[29] It should be emphasized that this dropout rate classifies GED holders as "dropouts". This finding will be shown below to be in very close accord with other independent estimates of the fraction of America's teenagers receiving regular high school diplomas in recent years,

[28] For a short technical discussion of coverage ratios in the CPS household survey, See: U.S. Bureau of Labor Statistics and U.S. Bureau of the Census, CPS Basic Monthly Survey: Coverage Ratios, web site, www.BLS.CENSUS.GOV download 9/23/2002.

including those of the U.S. Department of Education, the Manhattan Institute for Policy Research, and those of the Center for Labor Market Studies. The nation's school dropout problem is, thus, far more severe than indicated by a number of official federal government estimates, especially the status dropout rates estimated by the U.S. Department of Education.

High School Dropout Rates of States Based on the U.S. Department of Education's Common Core of Data

A third comprehensive source of data on high school dropouts in the United States is that produced by local and state departments of education.[30] A lack of common definitions and reporting procedures has historically limited the ability to compare dropout data across states. Since the early 1990s, however, the U.S. Department of Education has worked hard to develop a uniform set of definitions and reporting systems for dropout statistics for use by states.[31] The dropout data meeting the U.S. Department of Education's standards are compiled as part of the National Center for Education Statistics' Common Core of Data, and annual findings are published by the Department of Education in several research volumes, including the Digest of Education Statistics. Unfortunately, not all states cooperate with the U.S. Department of Education in meeting the required definitions and data collection standards. In recent years, annual dropout data have been available from only 37 states and the District of Columbia (See Appendix Table B for a listing of states not meeting the dropout data reporting requirements). The non-cooperating states include such large states as California, Florida, Michigan, New York, and North Carolina, most of which are believed to have higher than average dropout rates.[32]

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[29] A comparison of the findings of the self-reported high school diploma status of respondents to the 1994 NELS survey with findings of official school transcripts revealed that 2 percent of the respondents reporting a diploma did not receive an official diploma from their high schools.

[30] In its annual Digest of Education Statistics, the U.S. Department of Education publishes the annual dropout rates for public high schools in states cooperating with the Department's of Education's dropout statistics collection program. Some data are available from the other states but a lack of uniformity in definitions and data collection procedures make comparisons invalid. There is a clear need for more national leadership in this area.

[31] For a review of the definitions used by the state of Massachusetts in measuring the annual number of high school dropouts, See: Massachusetts Department of Education, Dropout Rates in Massachusetts Public Schools: 1999-2000, Malden, 2001. The dropout data for many states can be used to estimate the number of dropouts by gender, race-ethnic origin, and school district. Male/female dropout differences are frequently larger in central cities. See: Andrew Sum and Neil Sullivan, Gender Gaps in High School Dropout Rates and College Attendance Rates in Massachusetts and Its Large Cities: The Educational Deficits of Boys and Their Future Economic and Social Consequences, Center for Labor Market Studies, Northeastern University, April 2002.

[32] For example, using data on the actual number of high school diplomas awarded to students during the 1998-99 school year and the number of 17 year olds in these states, we find that the graduation rate of the 38 reporting states was 71.0 percent versus only 66 percent for the 13 states not reporting their dropout data to the U.S. Department of Education.

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Recent research on the quality of the dropout statistics from these states reveals a number of serious shortcomings that typically undercount the true number of dropouts.[33] Thus, we cannot obtain a national rollup of the available state dropout statistics due to missing data for 14 or more states each year.

Our analysis of the state administrative databases on school dropout rates will be confined to those states participating in the U.S. Department of Education's Common Core of Data. Dropout data for four school years over the 1993-94 to 1999-2000 period will be examined. These data are based on common definitions of dropouts and represent complete counts of the reported number of public high school dropouts. There are, however, several shortcomings of the data that are likely to lead to under-reporting of the true number of dropouts even in these states. First, the official dropout data pertain to students in grades 9 to 12. Students who drop out of school before attending the ninth grade will be excluded from the data. Our analysis of national 2001 monthly CPS data on the actual educational attainment of 18-29 year olds who failed to obtain a regular high school diploma or a GED certificate revealed that approximately 18 percent of these dropouts failed to complete any years of schooling beyond the 8th grade (Table 11). Males were only slightly more likely than female dropouts to leave school before completing the 9th grade. There are, however, substantial race-ethnic differences in the educational attainment of school dropouts, with Hispanic dropouts being far more likely than Whites or Blacks to fail to attend high school. Many of these Hispanic dropouts are immigrants, some of who never attended high school in the United States.

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[33] For examples of such critiques of state dropout statistics in those states not reporting dropout statistics on U.S. Department of Education definitions, See: (i) Douglas E. Hall, One in Four: School Drop-outs in New Hampshire, New Hampshire Center for Public Policy Studies, Concord, New Hampshire, June 2002; (ii) Gary Orfield, Robert Schwartz, et.al., Dropouts Concentrated in 35 Cities, While Federal Data on Dropouts Underestimates Problem, Harvard Graduate School of Education, Cambridge, 2001; (iii) Bob McManus, "Three-Card Dropout; The Board of ED's New Game," The New York Post, April 26, 2002; (iv) Howard Blum and Dennis Dockstader, "Degrees of Deceit: How One Inner-City L.A. High School Played the Numbers Game and Made Its Dropout Rate Go Away, Los Angeles Weekly, July 19-25, 2002.

Table 11:
Percentage Distribution of 18-29 Year Olds Lacking a High School Diploma or a GED Certificate by Years of Schooling Completed, Total and by Gender, U.S.: 2001 Annual Averages

Years of Schooling Completed	(A) All	(B) Men	(C) Women
1 – 4	1.2	3.7	3.5
5 – 8	16.6	14.6	13.7
9 – 10	29.8	29.5	30.3
11 – 12	52.4	52.2	52.5
Less than 9	17.8	18.3	17.2

Source: 2001 monthly CPS surveys, public use files, tabulations by authors.

Second, the official state dropout statistics are only based on those youth who attended public schools. Data on dropouts from private schools are not typically collected by states. The available literature suggests that private schools are characterized by lower dropout rates, but a complete count of dropout data from private schools is not available. The uniform availability of dropout data from all private schools would improve our knowledge base on the absolute size and relative incidence of dropout problems from all of the nation's high schools.[34]

Third, while students transferring out of a public school to another public school district or to a private school are counted as "enrolled" students, there frequently is not any longitudinal follow-up to verify that such school transfers did in fact take place. Even the school dropout statistics maintained by states conforming with the U.S. Department of Education's definitions and procedures are likely to undercount the true number of dropouts. Finally, the official state dropout statistics do not capture those immigrants lacking a high school diploma who never attended high school in the United States. During March 2001, approximately 30 percent of all foreign-born 18-24 year olds in the U.S. did not hold either a regular high school diploma or a GED certificate.[35] Among those 18-29 year olds arriving in the U.S. in the past five years, the ratio was closer to 40 percent. The high inflows of young immigrants with limited schooling

[34]Catholic schools appear to improve an array of educational outcomes for African-American children, including academic achievement test scores, but the effects of Catholic schools in rural areas are not as positive. See: William Sander, Catholic Schools: Private and Social Effects, Kluwer Academic Publishers, 2000.

[35] See: Andrew Sum and Mykhaylo Trub'skyy, The Nation's Young Adult Immigrant Population: A Profile of Their Demographic and Educational Backgrounds and Labor Market Experiences, Center for Labor Market Studies, Northeastern University, Boston, Report Prepared for the National League of Cities, Washington, D.C., 2002.

will, thus, add to the nation's young adult dropout population over and above the numbers reported by the nation's public high schools.

Annual High School Dropout Rates of Reporting States, Selected Years 1993-94 to 1999-2000

To illustrate the public high school dropout experiences of states participating in the NCES dropout statistics program, we examined findings on annual dropout rates of high school students (grades 9-12) for the 1993-94, 1995-96, 1997-98, and 1999-2000 school years. The annual dropout rate is measured by dividing the reported number of high school dropouts by the number of high school students. For each of these four school years, we calculated the distribution of reporting states by the size of their annual dropout rates and identified the minimum, maximum, and median dropout rates. The median dropout rate is that dropout rate which divides the state distribution into two equal parts. One half of the states will have dropout rates below the median while the other half will be characterized by dropout rates below the median.

For the 1993-94 school year, annual dropout rates based on the U.S. Department of Education's methodology were available for 35 states. (Table 12). The values of these dropout rates ranged from a low of 3.1 percent to a high of 13.7 percent, with a median dropout rate of 4.8 percent. Approximately one-fourth of these 35 states had dropout rates of 4.0 percent or less while another one-third had dropout rates of 6 percent or higher. A state with an annual dropout rate of 6.0 percent for each of four consecutive school years would have a cumulative four-year dropout rate for its high school students of 22 percent.[36]

[36] To estimate a projected high school graduation rate for a given state, we simply raise the value (1-annual dropout rate) to the power four. This calculation is based on the assumption that the dropout rate will remain the same for all four years. Subtracting the projected graduation rate from 1 yields the expected four-year dropout rate. For example, $(1-.06)^4 = .780$. One minus .780 equals .220, the expected dropout rate.

Table 12:
Annual Dropout Rates of Public High School Students in Grades 9 – 12 in 35 Reporting States, 1993-94 School Year

Dropout Rate	(A) Number of States	(B) Percent of States
4.0% or Less	8	23
4.1 – 5.0%	11	31
5.1 – 6.0%	5	14
6.1% or more	11	31
• Minimum	3.1	
• Maximum	13.7	
• Median	4.8	

Source: U.S. Department of Education, National Center for Education Statistics, "Common Core of Data."

For the 1995-96 school year, annual high school dropout rates also varied considerably across the 36 reporting states (Table 13). These dropout rates ranged from a low of 2.4 percent (Wisconsin) to a high of 11.6 percent (Louisiana), with a median dropout rate of 5.3 percent. Just under one-fifth of the states reported an annual dropout rate of 4.0 percent or less while more than one-fourth of the states were characterized by dropout rates of 6.1 percent or higher.

Table 13:
Annual Dropout Rates of Public Hig-h School Students in Grades 9-12 in 36 Reporting States, 1995–96 School Year

Dropout Rate	(A) Number of States	(B) Percent of Reporting States
4.0% or Less	7	19
4.1 – 5.0%	10	28
5.1 – 6.0%	9	25
6.1% or more	10	28
• Minimum	2.4	
• Maximum	11.6	
• Median	5.3	

Source: U.S. Department of Education, National Center for Education Statistics, "Common Core of Data."

For the 1997-98 school year, annual dropout rates meeting U.S. Department of Education standards were provided by 36 states and the District of Columbia (Table 14). These dropout rates again varied considerably across the states, ranging from a low of 2.8 percent (Wisconsin) to a high of 12.8 percent (District of Columbia). The median dropout rate for these 37 reporting states was 4.9 percent (Table 14). Approximately one-fourth of the states had annual dropout rates of 4 percent or less while another one-fourth of the states had dropout rates of 6.1 percent or higher.

Table 14:
Annual Dropout Rates of Public High School Students in Grades 9-12 in 37 Reporting States, 1997–98 School Year

Dropout Rate	(A) Number of States	(B) Percent of Reporting States
4.0% or Less	9	24
4.1 – 5.0%	11	30
5.1 – 6.0%	8	22
6.1% or more	9	24
• Minimum	2.4	
• Maximum	12.8	
• Median	4.9	

Source: U.S. Department of Education, National Center for Education Statistics, "Common Core of Data."

For the 1999-2000 school year, 36 states and the District of Columbia (Table 15) provided annual dropout rates meeting U.S. Department of Education definitions. These estimated annual dropout rates ranged from a low of 2.5 percent in Iowa to a high of 7.2 percent in the District of Columbia.[37] The median dropout rate for these 37 states was 4.5 percent. Slightly more than one-fourth of the states reported dropout rates of 4 percent or less, and six states reported an annual dropout rate of 6.0 percent or higher.

[37] Some caution has to be exercised in interpreting the D.C. data. The reported total number of high school dropouts fell by nearly one-half between the 1997-98 and 1998-99 school years.

Table 15:
Annual Dropout Rates of High School Students in Grades 9 – 12 in 37 Reporting States, 1999–2000 School Year

Dropout Rate	(A) Number of States	(B) Percent of Reporting States
4.0% or Less	10	27
4.1 – 5.0%	16	43
5.1 – 6.0%	6	16
6.1% or more	5	14
• Minimum	2.5	
• Maximum	7.2	
• Median	4.5	

Source: U.S. Department of Education, National Center for Education Statistics, "Common Core of Data."

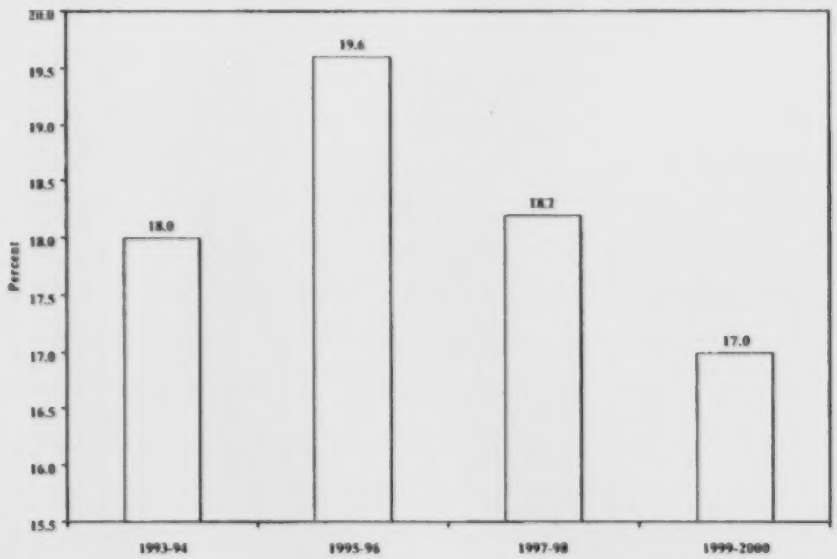
The estimated median annual high school dropout rates for public school students in reporting states for four school years are displayed in Table 16. Projected four-year dropout rates also are displayed in this table and in Chart 3 for each year. For these four school years, median dropout rates ranged from 4.5 percent to 5.3 percent, with a simple average of 4.9 percent. The projected four-year dropout rates for these same four school years ranged from 17.0 percent to just under 20 percent, with an average of 18.2 percent (Table 16). This 18.2 percent rate is likely to be biased downward as a true measure of the incidence of dropout problems among all of the nation's young adults for several reasons. First, the official dropout statistics apply only to those students in grades 9-12. As noted earlier, we estimate that 18 percent of all of the nation's young adult dropouts (18-29) did not complete any schooling beyond the eighth grade and, thus, would be excluded from the high school dropout statistics. Adjusting the 18.2 percent high school dropout for the reporting states to reflect those youth leaving school before 9th grade would raise the overall dropout rate to 22.2 percent. Second, the existing system for tracking the school enrollment status of transfers to other public high schools and to private schools is likely to under-report the true number of dropouts since some of these students will drop out before being reported as dropouts by their new schools. Third, many young immigrant dropouts arriving in the U.S. at age 16 or later never attend school in the United States and, thus, would not appear in the public school dropout statistics. Given their

growing numbers and their high dropout incidence, inclusion of immigrant dropouts in the totals would add at least another one to two percentage points to the dropout rates of public high schools. It is, thus, quite likely that the true incidence of school dropout problems among public schools students as augmented by immigrants never attending school in the U.S. is closer to 25 to 30 percent.

Table 16:
Median Annual Dropout Rates and the Median Projected Four Year Dropout Rates for Reporting States, Selected School Years 1993–94 to 1999–2000

School Year	(A) Annual Dropout Rate	(B) Projected 4 Year Dropout Rate
1993 – 94	4.8	18.0
1995 – 96	5.3	19.6
1997 – 98	4.9	18.2
1999 – 2000	4.5	17.0
Four year average	4.9	18.2

Chart 3:
Median Projected Four-Year Dropout Rates of States, Selected School Years, 1993-94 to 1999-2000
(in Percent)



The Incidence of Public High School Dropout Problems Among Men and Women

States reporting annual dropout statistics to the U.S. Department of Education also provide data on the gender characteristics of high school dropouts. Data for four school years over the 1993-94 to 2000-2001 period are presented in Tables 17 through 21.[38] During the 1993-94 school year, males accounted for a majority of the high school dropouts in all 34 of the reporting states (Table 17). The male share of dropouts during this school year ranged from a low of 51 percent to a high of just under 60 percent, with a median share of 57 percent. In eight of every ten reporting states, males comprised 55 percent or more of the estimated number of high school dropouts.

Table 17:
Male High School Dropouts as a Percent of All Public High School Dropouts in 34 States, 1993–94 School Year

	(A)	(B)
Male Share of Dropouts	Number of States	Percent of Reporting States
51 – 54%	7	21
55 – 57%	17	50
58% or higher	10	29
• Minimum	51.3	
• Maximum	59.6	
• Median	57.3	

Source: U.S. Department of Education, National Center for Education Statistics, "Common Core of Data."

During the 1995-96 school year, males again represented a majority of the high school dropouts in all 36 reporting states (Table 18). The male share of dropouts ranged from a minimum of 53 percent to a high of nearly 62 percent, with a median share of just under 58 percent. In 92 percent of the reporting states, males accounted for 55 percent or more of the dropouts during the 1995-96 school year.

[38] The gender data on school dropouts for the 2000-2001 school year were reported directly to the Center for Labor Market Studies by 30 states, including several states not collecting data in strict accord with U.S. Department of Education definitions of dropouts.

Table 18:
Male High School Dropouts as a Percent of All Public High School Dropouts in 36 States, 1995–96 School Year

Male Share of Dropouts	(A) Number of States	(B) Percent of Reporting States
51 – 54%	3	8
55 – 57%	17	47
58% or higher	16	45
• Minimum	53.0	
• Maximum	61.5	
• Median	57.7	

Data on the gender characteristics of public high school dropouts during the 1997-98 school year were available for 35 states. Again, in all 35 of these states, males comprised a majority of the high school dropouts, with their shares ranging from a low of 53 percent to a high of just under 61 percent. (Table 19). The median male share was 58 percent. In nearly nine of every ten reporting states, males represented 55 percent or more of the high school dropouts during the 1997-98 school year.

Table 19:
Male High School Dropouts as a Percent of All Public High School Dropouts in 35 States During the 1997–1998 School Year

Male Share of Dropouts	(A) Number of States	(B) Percent of Reporting States
51 – 54%	4	11
55 – 57%	13	37
58% or higher	18	51
• Minimum	53.2	
• Maximum	60.9	
• Median	58.0	

Source: U.S. Department of Education, National Center for Education Statistics, "Common Core of Data."

Gender data on high school dropouts during the 2000-2001 school year were collected by the authors from 30 states. (The names of these 30 states are displayed in Appendix Table C). For each of these 30 states, we estimated the number of male dropouts per 100 female dropouts (Table 20). Again, in every one of these 30 states, the number of male dropouts exceeded the number of female dropouts. The lowest ratio was 120 men per 100 women while the maximum ratio was 216 men per 100 women. The median ratio was 134 men per 100 women.

Table 20:
Number of Male Public High School Dropouts Per 100
Female Dropouts in 30 States, 2000–2001 School Year

	(A)	(B)
Male Dropouts Per 100 Female Dropouts	Number of States	Percent of Reporting States
120 – 130	12	40
131 – 140	12	40
141 – 150	3	10
151 – 160	2	7
161 or more	1	3
• Minimum	120	
• Maximum	216	
• Median	134	

Source: State Departments of Education as reported to the Center for Labor Market Studies, 2002.

For each of the four school years for which gender data on high school dropouts was analyzed, we estimated the median ratio of male dropouts per 100 female dropouts. Findings are displayed in Table 21. The median ratios vary within a fairly narrow range, from 134 per 100 to 138 per 100. The administrative statistics on public high school dropouts over the past eight years reveal quite clearly that males are considerably more likely than women to drop out of high school before receiving a regular high school diploma, with an average ratio of 135 – 136 men per 100 women. Other analyses by the authors of CPS data on the self-reported educational attainment of young adult dropouts reveals that male dropouts are somewhat more likely than female dropouts to report completing eight or fewer years of schooling. Males, thus, will comprise an even higher share of those dropouts failing to make it to high school.

Table 21:
The Median Number of Male Public High School Dropouts Per 100 Female Dropouts, Selected School Years, 1993–94 to 2000–2001

School Year	(A) Number of Reporting States	(B) Median Ratio of Males Per 100 Women
1993 – 94	34	134
1995 – 96	36	136
1997 – 98	35	138
2000 – 2001	30	134

Annual High School Dropout Rates in Large Public School Districts

Data on annual high school dropout rates for large public school districts also are available from the U.S. Department of Education. These data are used by the Department of Education to project high school graduation rates.[39] For the 1998-99 school year, estimates of high school graduation rates were available for 46 of the nation's 100 largest school districts (Table 22). These projected graduation rates for public high school students ranged from a low of 37 percent to a high of nearly 94 percent, with a median graduation rate of nearly 72 percent. A 72 percent high school graduation rate implies a four-year cumulative dropout rate of 28 percent. This dropout rate, however, is also biased downward as a true measure of the overall incidence of dropout problems among youth in these large public school districts since it excludes those youth who leave school prior to the 9th grade and ignores those immigrant youth who lack a high school diploma but never attended high school in the United States. The nation's large central cities are home to the largest share of immigrant dropouts.

[39] Analyses of local public school graduation rates by Jay Greene of The Manhattan Institute for Policy Research using a slightly different methodology than that of the U.S. Department of Education yields very similar high annual dropout rates for most large districts and states.
See: Jay P. Greene, High School Graduation Rates in the United States, Center for Civic Innovation at The Manhattan Institute, Prepared for the Black Alliance for Educational Options, November 2001.
For a review of the extremely limited high school graduation rates for Cleveland public schools, the nation's poorest performer,
See: Scott Stephens, "Cleveland Class of '98 Faced Long Odds," The Plain Dealer, November 14, 2001.

Table 22:
Projected Graduation Rates for Public High Schools in 46 of the Nation's 100 Largest School Districts, 1998-99 School Year

Projected Graduation Rate	(A) Number of Districts in Range	(B) Percent of Districts
80.0 or Higher	16	35
70.0 – 79.9	9	20
60.0 – 69.9	12	26
50.0 – 59.9	8	17
<50.0	1	2
Total	46	100.0
Median Value	71.7%	
Range	37.0 – 93.6%	

Source: National Center for Educational Statistics, Washington, D.C., tabulations by authors.

Of the 46 large public school districts reporting dropout data for the 1998-99 school year to the National Center for Education Statistics, only slightly more than one-third had a projected graduation rate of 80 percent or higher, and nearly one-fifth had a graduation rate under 60 percent. If we include two additional school districts (Baltimore and Jefferson Parish, Louisiana) with a dropout rate between 39 and 40 percent, we find that 11 of these 46 large public school systems had dropout rates of 40 percent or higher. The names and projected four-year dropout rates of these eleven large public school districts are displayed in Table 23. These 11 large school districts included Cleveland, Minneapolis, Chicago, New Orleans, Portland (Oregon), St. Louis, and Baltimore. The list would be even larger if all states had reported their dropout statistics to the U.S. Department of Education. All large public school districts in California, Florida, Michigan, New York, and Texas were excluded from the list since these large states had not yet reported dropout statistics on the basis of the definitions and procedures recommended by the U.S. Department of Education.

Table 23:
Eleven Large Public School Districts in the United States With a
Projected Four-Year Dropout Rate of 40% or Higher, 1998 – 99 School Year

School District	(A) Projected Dropout Rate
Cleveland City	63.0
Minneapolis	49.5
City of Chicago	48.7
East Baton Rouge Parish	46.8
Orleans Parish, Louisiana	45.4
Portland, Oregon	42.7
St. Louis City	41.2
Caddo Parish	41.0
Granite, Utah	40.2
Baltimore City	39.6
Jefferson Parish, Louisiana	39.4

Source: National Center for Education Statistics, Washington, D.C.

Research staff within the Center for Labor Market Studies has made a series of concerted efforts over the past few months to collect data on the gender characteristics of high school dropouts from the nation's 100 largest public school districts. Data were provided by 30 of these 100 large school districts at the time of the writing of this report. The names and geographic locations of these 30 large public school districts are displayed in Appendix D. The number of male high school dropouts per 100 female high school dropouts in these 30 large school districts varied from a low of 105 to a maximum of 181, with a median value of 131. (Table 24). Clearly, some school districts do a better job in retaining men in high school than others. Unfortunately, there was no large public school district in which the number of male high school dropouts was less than the number of female dropouts. In one-fifth of these large public school districts, the ratio of male to female dropouts was less than 120 to 100; however, in another one-fifth of these districts, the ratio of male to female dropouts was more than 160 per 100. All of the administrative data sources on public high school dropouts, whether at the state or local level, reveal that men are considerably more likely than women to drop out of high school although the relative incidence of male dropout problems also varies quite widely by state and local area. Unfortunately, our knowledge base on the types of school programs that succeed in keeping young men in high school, especially in the nation's large central cities, is as thin as gruel.

Table 24:
Distribution of 30 Large Local Public School Districts by their
Ratios of Male to Female High School Dropouts, School Years 2000 – 2001

Ratio of Male to Female Dropouts	(A) Number of Districts	(B) Percent of Districts
105 – 120	6	20
121 – 140	13	43
141 – 160	5	17
161 – 180	4	13
181 or higher	2	7
• Minimum	105	
• Maximum	181	
• Median	131	

Source: Local School Districts as reported to Center for Labor Market Studies.

Estimating High School Graduation Rates with the Annual High School Diploma Data

A fourth methodology that can be used to estimate high school graduation rates involves the use of national and state administrative data on the annual numbers of high school diplomas awarded by public and private high schools throughout the nation. The U.S. Department of Education has collected data on the number of high school diplomas awarded annually to students back to the 1880s.[40] The U.S. Department of Education has produced estimates of annual "high school graduation ratios" by dividing the number of high school diplomas awarded annually by all of the nation's high schools, both private and public, by the estimated number of 17 year olds in the nation's resident population.[41] One shortcoming of this database is that there are no gender breakouts of the numbers of diplomas awarded; thus, we cannot estimate high school graduation rates for men and women separately.

The estimates of "high school graduation ratios" based on this methodology have a number of strengths. First, the estimates are based on administrative data provided by all public and private high schools and represent a complete count of all high school diplomas awarded

[40] Estimates of these high school "graduation rates" are published by the U.S. Department of Education in its annual publication titled Digest of Education Statistics. Our estimates are based on findings from the 2000 Digest.

during a given year. This is a universe count not a sample estimate, and there is no reason to believe that high schools would under-report or over-report the number of diplomas they awarded. Second, the denominator for this formula is a resident population estimate based on the U.S. Census Bureau's annual updates of the number of residents by single age group, taking into account deaths, in-migration from abroad, and emigration from the United States. The U.S. Census Bureau has tended to underestimate the size of the resident population by undercounting new foreign immigrant inflows during the 1990s. If the denominator has any bias, it is strictly downward bias, implying that the formula for estimating high school graduation rates would yield too high an estimate of the true graduation rate. Many young immigrants (30 to 40 percent) lack high school diplomas from their own countries. This is especially true for undocumented immigrants.

One might question the use of the 17-year-old population as the denominator for this formula since many high school students do not receive their diploma until they are age 18 or 19. Our own analysis has shown that the use of population data on the nation's 18 year olds or on a simple average of the number of 17 and 18 year olds yields nearly identical estimates of the annual graduation rate. (See Appendix E). In a steady state situation where the absolute numbers of teens are constant year to year and the graduation rates by age group are given, the high school graduation rate produced by this U.S. Department of Education methodology would be identical to that obtained by tracking all high school students throughout their entire teenage years to determine their diploma status.[42]

From the late nineteenth century through 1970, the high school graduation rate of the United States increased steadily and strongly. Even as recently as 1950, only 59 percent of the nation's teens graduated from high school with a regular diploma. This ratio rose to 77 percent

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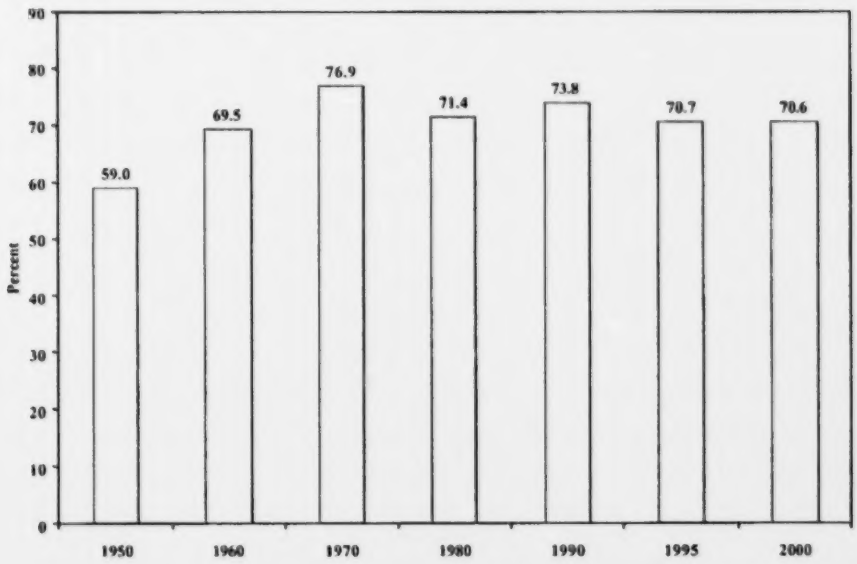
[41] This ratio recently has been referred to as the "degree ratio" by Duncan Chaplin of The Urban Institute in an excellent article on high school graduation rates in the U.S. See: Duncan Chaplin, "Tassels on the Cheap," Education Next, Fall 2002, pp. 24-29.

[42] In a steady state situation where the number of teenagers in each single age group is the same year to year, the high school graduation rate based on the Department of Education's methodology will be identical to that based on a longitudinal tracking methodology that takes into account the varying ages of students at the time of their graduation from high school. For example, suppose that there are 100 teenagers in each age group 17, 18, and 19 and that 80 percent of all teens will eventually graduate from high school, with 60 percent of the graduates obtaining their diploma at age 17, 30 percent at age 18, and 10 percent at age 19. The high school graduate ratio methodology will yield 48 graduates age 17, 24 graduates age 18, and 8 graduates age 19, or 80 graduates, yielding a graduation ratio

by 1970, but then never increased further (Chart 4). In fact, by 1980, the "graduation ratio" had declined to 71 percent, fluctuated in a narrow range in the 1980s, and has hovered fairly close to 71 percent since 1995. No progress in raising the high school graduation ratio was achieved in the 1990s. The national educational goal of a 90 percent high school graduation rate by the year 2000 established by the nation's governors in 1989 was far from being achieved at the close of the decade.[43] Approximately 30 percent of all U.S. teenagers do not obtain a regular high school diploma today. In addition, young foreign immigrants (16-24) who arrive in the U.S. with no high school diploma from their native countries supplement to a considerable degree the large numbers of native-born high school dropouts.[44]

Chart 4:
Trends in the Numbers of New High School Diplomas Awarded as a Percent of the Nation's 17 Year Old Population, Selected Years 1950 to 2000



Source: U.S. Department of Education, Digest of Education Statistics, 2001, Table 101.

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of 80/100 or 80 percent, the same as the graduation rate that would be generated with the use of longitudinal tracking of these same students.

[43] It should be noted, however, that the definition of the graduation rate as established by the National Goals Panel included GED certificates. The national educational goals with respect to high school graduation rates were described in the following publication:
U.S. Department of Education, Office of Educational Research and Improvement, Goal 2 Work Group, Reaching the Goals, Goal 2: High School Completion, U.S. Government Printing Office, Washington, D.C., 1993.

[44] For a recent review of the educational backgrounds of the nation's young adult immigrants ages 18 to 24, See: Andrew Sum, Mykhaylo Trub'skyy, with Sheila Palma, The Young Adult Immigrant Population of the United States: A Profile of Their Demographic and Educational Characteristics and their Labor Market Experiences, National League of Cities, Institute on Youth, Education, and Families, Washington, D.C., 2002.

We also have estimated "high school graduation ratios" for each of the 50 states and the District of Columbia for the 1996-97 and 1998-99 school years using the same methodology for states as that employed by the U.S. Department of Education in generating such estimates for the nation. The number of high school diplomas awarded by all public and private high schools in each state was divided by the number of 17 year old residents in each state as estimated by the U.S. Census Bureau. We also produced such estimates for each state using the number of 18 year olds in the denominator and obtained nearly identical results.

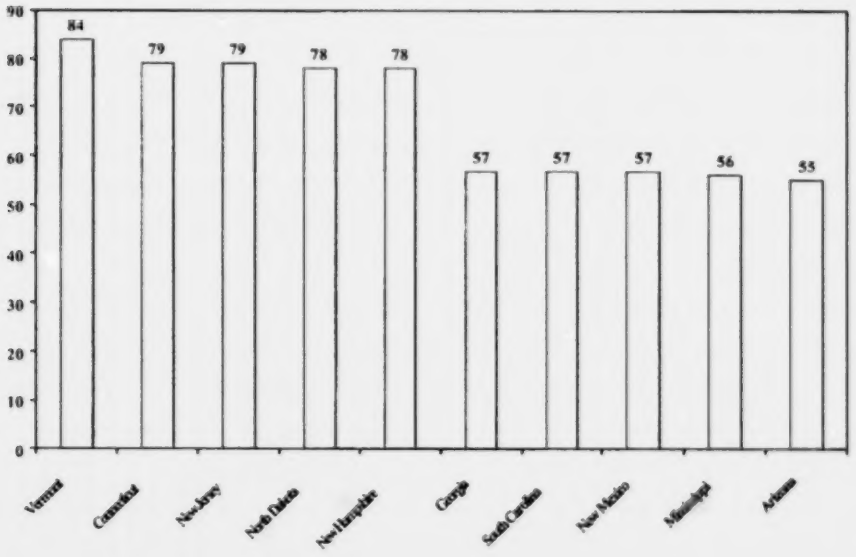
During the 1996-97 school year, high school graduation ratios varied widely across the 50 states, ranging from lows of 55 percent in Arizona and 56 percent in Mississippi to a high of 84 percent in Vermont (Chart 5). The median high school graduation ratio for the 50 states and D.C. was only 69 percent (Table 25). Eleven of the states had a high school graduation ratio of less than 60 percent, another 16 states had graduation ratios ranging from 60 to 69 percent, and 23 states had a graduation ratio between 70 and 79 percent. Only one state (Vermont) had a high school graduation ratio greater than 80 percent. Not one state had achieved a graduation rate of 90 percent, the national high school graduation goal for the year 2000.[45]

Table 25:
The Distribution of the 50 States and the District of Columbia by Their High School Graduation Ratios, 1996 – 97 School Year

Graduation Ratio	(A) Number of States	(B) Percent of States
76% or higher	10	19
70 to 75%	14	28
65 to 69%	12	24
60 to 64%	4	8
<60%	11	21
Range		
• Minimum	55	
• Maximum	84	
• Median	69	

[45] As noted earlier, however, in measuring progress toward achieving the national high school graduation goal of 90 percent, the U.S. Department of Education has included GED recipients in the count of high school graduates. The high school graduation ratios reported in this section do not include GED holders.

Chart 5:
Top Five and Bottom Five States Ranked by Their
High School Graduation Ratios, 1996 – 97 School Year
(in Percent)



Findings on graduation rates for the 1998-99 school year are quite similar to those for the 1996-97 school year (Table 26). Again, there is substantial diversity across states in their estimated high school graduation rates. These graduation rates ranged from lows of 55 percent in Arizona and 57 percent in Georgia to highs of 83 percent in Nebraska and 85 percent in Vermont (Chart 6). There is a high degree of stability in state rankings on these measures over short periods of time. Four of the bottom five states in 1996-97 were in the bottom five during the 1998-99 school year, and seven of the top ten states in 1996-97 were ranked in the top ten during the 1998-99 school year. A Spearman rank correlation test for state graduation ratios during the 1996-97 and 1998-99 school years yielded a correlation coefficient of .93, very high and significant at the .01 level.

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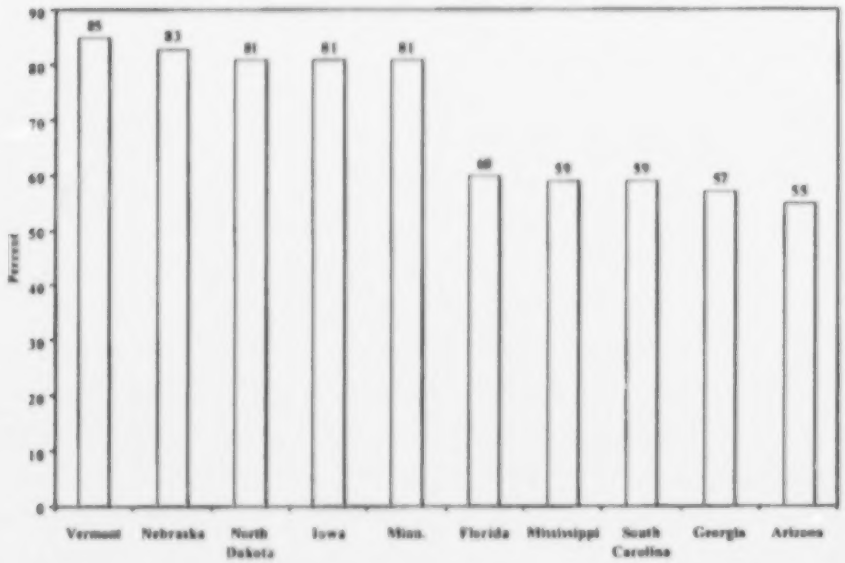
Table 26:
The Distribution of the 50 States and the District of Columbia by Their High School Graduation Ratios, 1998-99 School Year

Graduation Ratio	(A) Number of States	(B) Percent of States
76% or higher	14	27
70 to 75%	18	35
65 to 69%	5	10
60 to 64%	10	20
<60%	4	8
Range		
• Minimum	55	
• Maximum	85	
• Median	71	

Chart 6:
Top Five and Bottom Five States Ranked by Their High School Graduation Ratios, 1998–99 School Year



The median high school graduation ratio for the 50 states and the District of Columbia during the 1998-99 school year was only 71 percent, nearly 20 percentage points below the 2000 national goal of a 90 percent graduation rate (Table 26). Only six states had a graduation rate of

80 percent or higher in 1998-99 and not one state achieved a 90 percent graduation rate; i.e., students leaving high school with a regular diploma.

Using a slightly different methodology for estimating high school graduation rates from the nation's public high schools for the Class of 2000, Jay P. Greene has come to quite similar conclusions regarding the national graduation rate.[46] His methodology yields a 69 percent graduation rate for all of the nation's public high schools for the Class of 2000, a graduation rate nearly identical to our 68.7 percent national graduation rate for all high school students during the 1998-99 school year. A Spearman rank correlation test for Greene's high school graduation rates for public high schools during 2000 by state and our estimates of state graduation rates for the 1998-99 school year yielded a correlation coefficient of .771, statistically significant at the .01 level.

Summary and Conclusions

Nearly all analyses of the labor market and social experiences of young adults in the past decade have revealed the growing importance of formal educational attainment for success in U.S. labor markets in recent years. Those individuals failing to secure a regular high school diploma face very bleak economic prospects over their entire working lives. Keeping youth in high school through graduation has become accepted as an important national educational goal. Unfortunately, on a wide variety of measures of the school dropout problem, the pool of teenagers leaving the nation's high schools without obtaining a regular high school diploma remains quite substantial and is far higher than indicated in a number of official federal government estimates of the number of school dropouts over the past 10 years. The relative size of this pool of non-graduates has not declined over the past decade, and the absolute size of this pool of non-graduates will likely continue to rise over the coming decade as the teenage population continues to increase unless dramatic improvements take place in high school graduation rates across the country, especially in the South, the Rocky Mountain region,

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[46] Greene compares average public school enrollments in grades 8, 9, and 10 for a given academic year with the number of public high school students awarded regular diplomas three years later,
See: Jay P. Greene with Marcus A. Winters, Public School Graduation Rates in the United States, The Manhattan Institute for Policy Research, New York City, 2002.
For Greene's estimates of high school graduation rates for the nation and individual states for the Class of 1998 using a slightly different methodology,

California, and New York.[47] The extraordinarily high dropout rates of public school students in many of the nation's large central cities also need to be addressed in the near future.

Given its limitations in accurately identifying the true number of high school dropouts, the use of national CPS data to measure official dropout rates should be discontinued. The state samples for the CPS data also are too small to reliably estimate annual or multi-year average dropout rates for states. The U.S. Department of Education's definitions and procedures for uniformly estimating dropouts should be adopted by every state across the country. The U.S. Congress should mandate that every state adopt these definitions and data collection procedures to be eligible for educational funding from the federal government, including monies under the recently enacted Leave No Child Behind Act. States also must adopt uniform auditing procedures to guarantee that the dropout data are being accurately reported by state and local school districts. A uniform set of data collection and auditing procedures would allow the U.S. Department of Education to produce more reliable annual dropout statistics for the nation and each state as part of the Common Core of Data System.

The high concentrations of school dropouts, especially male dropouts, in many of these large central cities should be viewed as the new "social dynamite" of the twenty-first century.[48] The severe economic and labor market problems of male dropouts together with the high incidence of social pathologies among these young dropouts (high rates of arrests, convictions, incarcerations, and absent fatherhood, and low rates of marriage and family stability) should be viewed as a major public policy concern by the nation's mayors, other city officials, governors, educators, business, and labor leaders. Neil Sullivan, the Executive Director of the Boston Private Industry Council, has referred to this large group of male dropouts as the "invisible dropouts, who are often off the radar screen of too many workforce development and educational programs."[49]

See: Jay P. Greene, High School Graduation Rates in the United States, Black Alliance for Educational Options and the Center for Civic Innovation at the Manhattan Institute, November 2001.

[47] According to U.S. Census Bureau population projections, the number of 15-19 year old teens in the United States will increase from 19.897 million in 2000 to 21.843 million in 2008 before peaking in 2009. This represents a gain of just under 2 million or 10 percent over this eight year period.

[48] In his 1961 book titled Slums and Suburbs, James Conant, the President of Harvard University, used this expression to describe the potential social explosions building in the nation's large cities as a consequence of unemployed and undereducated Black youth.

See: James Conant, Slums and Suburbs, Mc-Graw Hill, New York, 1961.

[49] For a review of gender differences in high school dropout problems in large cities of Massachusetts,

The personal and social economic consequences of dropping out of high school in the U.S. in recent years have been quite substantial, with large declines in lifetime employment and earnings. Over his working life, the average male high school dropout in the United States can expect to earn nearly $450,000 less than his counterpart who obtains a regular high school diploma but completes no years of post-secondary schooling. The persistence of these severe male dropout problems will only intensify problems of labor shortages, structural unemployment, working poverty, crime, family breakdown, child poverty, and economic dependency in the years ahead. The low tax revenues and high transfer receipts (both cash and in-kind) of male dropouts that result from their low lifetime earnings also will exacerbate fiscal problems at the state and federal level. The existence of this large pool of dropouts, especially male dropouts, represents a classic "Lose-Lose" situation for the dropouts themselves and society at large. The problem needs to receive considerably more attention from the nation's and each state's economic and educational policymakers.

See: Andrew Sum, Neil Sullivan, Jacqui Motroni, and Sheila Palma, Gender Differences in Educational Outcomes in Massachusetts and Its Large Cities, Center for Labor Market Studies, Northeastern University and Boston Private Industry Council, Boston, 2002.

Appendix A:
Comparisons of the Estimated Number of National High School Dropouts from the October 1998 CPS Survey with the Estimated Number of High School Dropouts from Administrative Data Sources and Imputed Estimates

The October CPS household survey contains a supplementary set of questions that are designed to identify the school enrollment status of all household members (three years of age or older) as well as the numbers of youth who either dropped out of school during the past twelve months or graduated from high school during the previous year. The U.S. Census Bureau and the U.S. Bureau of Labor Statistics use the findings of the October CPS surveys to estimate the annual number of school dropouts. During the past five years, the estimated national number of 16-24 year old school dropouts has ranged from 502,000 to 524,000, with an average of 510,000. We believe, however, that the October CPS survey, which is based on self-reports and proxy responses by adult household members, substantially under-estimates the true annual number of youth who leave the school system prior to receiving a regular high school diploma. This appendix describes the data sources, methodologies, and assumptions underlying our estimates of 846,000 likely school dropouts throughout the country during the 1997-98 school year.

Our first component of the national dropout estimate for the 1997-98 school year is based on the numbers of public high school dropouts reported by 36 states and the District of Columbia in their annual reports to the U.S. Department of Education. The estimated number of high school dropouts (graduates 9 through 12) for these 37 areas was 365,500 (See Table A-1). For the remaining 14 states not conforming to the U.S. Department of Education's dropout definitions and reporting procedures, we imputed the number of high school dropouts during the 1997-98 school year by making the assumption that the number of public high school dropouts in these 14 states combined would be proportional to their share of the number of public high school graduates during the same year. These 14 states graduated just under 46 percent of all public high school graduates during the 1997-98 school year. If their share of all public high school dropouts were proportional to their share of public high school graduates, then there would have been 302,500 high school dropouts from these 14 states, including California, Florida, Michigan, New York, and Texas. We believe that this assumption of proportionality is a very conservative one. For the 1998-99 school year, we find that the estimated "diploma grant" rates for the 38 states reporting dropout statistics to the U.S. Department of Education was five

percentage points higher than the 13 states not reporting their dropout data. (See Appendix Table A-1).

The above two estimates of high school dropouts are based solely on high school dropouts from public schools. An estimate is needed of the number of high school dropouts from private schools. Unfortunately, dropouts from private high schools are not reported on an annual basis to the U.S. Department of Education. To impute a number for private high school dropouts, we adopted the following conservative assumption: the dropout rate for private high schools would only be 50 percent as high as that for the nation's public schools. During the 1997-98 school year, the number of high school graduates from the nation's private high schools was approximately 10 percent of the national total. If the dropout rate from private high schools were only half as high as that for the nation's public schools, there would have been just under 35,000 private high school dropouts during that school year.

One final component of the school dropout population needs to be estimated: the number of youth leaving school prior to the 9th grade. A uniform administrative data base on this group is not available. We have used findings from the national monthly CPS surveys to estimate the number of years of schooling completed by 18-29 year olds not holding a regular high school diploma or a GED certificate. During calendar year 2001, approximately 18 percent of all 18-29 year old dropouts reported that they did not complete any schooling beyond the eighth grade.[50] This group would not be represented in the dropout statistics for public or private high schools. We estimate that during an average year in the mid to late 1990s there would have been 152,000 youth leaving school before completing the ninth grade.

The estimated total number of school dropouts in the U.S. during the 1997-98 school year, including dropouts at all grade levels and in private and public high schools, was 846,300. This number was 341,000 or nearly 70 percent higher than the estimate of 505,000 school dropouts from the October 1998 CPS survey. This 846,000 estimated pool of school dropouts would yield an annual dropout rate of close to 5.9 percent for the 1997-98 school year, considerably higher than the 3.5 percent dropout rate based on the October CPS survey's estimates of school dropouts among 16-24 year olds.

Appendix Table A-1:
Estimates of the Total Number of School Dropouts During the 1997-98 Academic Year by Component, U.S.

Component	Number of Dropouts
Public high school dropouts grades 9-12 from 36 state and the District of Columbia as reported to U.S. Department of Education	356,500
Imputed number of public high school dropouts, grades 9-12, from the remaining 14 states	302,500
Estimated number of private high school dropouts	34,700
Estimated number of students dropping out of school before completing 9th grade	152,600
Total school dropouts during the 1997-98 school year	846,300

[50] This group includes foreign immigrants, some of whom did not attend any regular school in the U.S. Foreign-born dropouts are more likely than the native born to have failed to complete more than 8 years of school.

Appendix Table B:
States for Whom Annual Dropout Rates Were Not Available from the U.S. Department of Education's Common Core of Data, Selected School Years, 1993 – 94 to 1999 – 2000

(A)	(B)	(C)	(D)
1993 – 94	1995 – 96	1997 – 98	1999 – 2000
Alaska	--	--	Arizona
California	California	California	California
Colorado	Colorado	Colorado	Colorado
Florida	Florida	Florida	Florida
Hawaii	Hawaii	Hawaii	Hawaii
Indiana	Indiana	Indiana	Indiana
Kansas	Kansas	Kansas	Kansas
Kentucky	Kentucky	--	--
Michigan	Michigan	Michigan	Michigan
Montana	--	--	--
New Hampshire	New Hampshire	New Hampshire	New Hampshire
New York	New York	New York	New York
North Carolina	North Carolina	North Carolina	North Carolina
South Carolina	South Carolina	South Carolina	South Carolina
Texas	Texas	Texas	--
Washington	Washington	Washington	Washington
	D.C.	Oregon	Idaho
(N = 16)	(N = 15)	(N = 14)	(N = 14)

Appendix Table C:
Alphabetical Listing of the 30 States Reporting High School Dropout Statistics by Gender for the Class of 2000–2001

State	State
Alabama	North Carolina
Alaska	North Dakota
Arizona	Nebraska
Colorado	New Hampshire
Connecticut	New Jersey
Delaware	New York
Florida	Oregon
Iowa	Pennsylvania
Kansas	Rhode Island
Kentucky	South Carolina
Massachusetts	Tennessee
Maryland	Texas
Maine	Utah
Mississippi	Washington
Montana	Wisconsin

Appendix Table D:
A Listing of the 30 Local School Districts Providing High School Dropout Data by Gender to the Center for Labor Market Studies

School District	State
Mobile County	AL
Mesa Unified	AZ
LA Unified	CA
San Diego City Unified	CA
Long Beach Unified	CA
Fresno Unified	CA
San Francisco Unified	CA
Santa Ana Unified	CA
Oakland Unified	CA
Sacramento City Unified	CA
San Bernardino Unified	CA
San Juan Unified	CA
Garden Grove Unified	CA
Jefferson County	CO
Gwinett County	GA
De Kalb County	GA
Cobb County	GA
Fulton County	GA
Atlanta City	GA
Wichita	KS
Prince Georges County	MD
Montgomery County	MD
Baltimore City	MD
Baltimore County	MD
Anne Arundel County	MD
Minneapolis[1]	MN
St. Paul[1]	MN
Wake County	NC
Washoe County	NV
Fairfax County	VA

Note: [1] data provided for grades 7 – 12.

Appendix E: Sources of Data for Estimates of Graduation Ratios

This appendix describes the data sources underlying our estimates of graduation ratios for each of the 50 states and the District of Columbia during the 1998-1999 school year and presents the estimates for each state. There are two data sets involved in deriving the estimates of graduation ratios for the 17 and 18-year-old population for the 1998-1999 school year.

The first set of data inputs for our graduation ratios for the 1998-1999 school year are the numbers of public and private high school graduates as reported by the 50 states and the District of Columbia in their annual reports to the U.S. Department of Education.

The second data source for the graduation ratio estimates is the population estimates from the U.S. Census Bureau's state population estimates program by single year of age (17 and 18 year old population).

We derive graduation rates for the 17 and 18-year-old population for the 1998-1999 school year by dividing the total number of high school graduates in that school year by the total number of 17 or 18 year olds, respectively, in each state in the same year.

Total High School Graduates (Private and Public Schools) and Graduation Rate as a Proportion of the 17-Year Old Population, 1998-1999

State	Total HS Degrees	17 Years Pop. (1999)	Grad. Rate	Rank	State	Grad. Rate
United States	2,761,629	4,017,499	68.7		United States	68.7
Alabama	40,568	65,870	61.6	1	Vermont	85.5
Alaska	7,055	11,289	62.5	2	Nebraska	82.8
Arizona	38,127	69,417	54.9	3	North Dakota	81.3
Arkansas	28,216	38,911	72.5	4	Iowa	81.2
California	327,318	488,615	67.0	5	Minnesota	81.1
Colorado	39,428	63,362	62.2	6	Connecticut	81.0
Connecticut	33,425	41,271	81.0	7	New Hampshire	78.5
Delaware	7,635	10,417	73.3	8	West Virginia	78.4
District of Columbia	3,906	5,421	72.1	9	Pennsylvania	77.9
Florida	115,252	191,285	60.3	10	Massachusetts	77.7
Georgia	66,046	115,374	57.2	11	Maine	76.6
Hawaii	12,247	16,869	72.6	12	Wisconsin	76.6
Idaho	16,175	22,873	70.7	13	Maryland	76.3
Illinois	129,208	177,065	73.0	14	Utah	76.1
Indiana	63,505	90,227	70.4	15	Rhode Island	75.1
Iowa	37,071	45,662	81.2	16	New Jersey	75.1
Kansas	30,756	43,555	70.6	17	Ohio	73.3
Kentucky	41,176	60,116	68.5	18	Delaware	73.3
Louisiana	46,518	76,475	60.8	19	Montana	73.1
Maine	14,143	18,460	76.6	20	Illinois	73.0
Maryland	53,810	70,549	76.3	21	Hawaii	72.6
Massachusetts	61,097	78,583	77.7	22	Arkansas	72.5
Michigan	103,239	148,884	69.3	23	District of Columbia	72.1
Minnesota	60,974	75,219	81.1	24	Missouri	71.2
Mississippi	27,847	47,143	59.1	25	South Dakota	71.0
Missouri	59,382	83,459	71.2	26	Wyoming	71.0
Montana	11,320	15,487	73.1	27	Virginia	70.9
Nebraska	22,853	27,616	82.8	28	Idaho	70.7
Nevada	14,531	23,548	61.7	29	Oklahoma	70.7
New Hampshire	13,145	16,750	78.5	30	Kansas	70.6
New Jersey	78,482	104,535	75.1	31	Indiana	70.4
New Mexico	18,678	29,638	63.0	32	Washington	70.1
New York	165,740	245,608	67.5	33	Michigan	69.3
North Carolina	64,337	101,560	63.3	34	Kentucky	68.5
North Dakota	8,836	10,866	81.3	35	New York	67.5
Ohio	124,506	169,782	73.3	36	California	67.0
Oklahoma	38,191	54,027	70.7	37	Texas	65.3
Oregon	30,621	49,336	62.1	38	North Carolina	63.3

State	Total HS Degrees	17 Years Pop. (1999)	Grad. Rate	Rank	State	Grad. Rate
Pennsylvania	130,634	167,723	77.9	39	New Mexico	63.0
Rhode Island	9,583	12,752	75.1	40	Alaska	62.5
South Carolina	34,410	58,431	58.9	41	Colorado	62.2
South Dakota	9,199	12,950	71.0	42	Oregon	62.1
Tennessee	47,540	78,300	60.7	43	Nevada	61.7
Texas	213,381	326,963	65.3	44	Alabama	61.6
Utah	32,366	42,536	76.1	45	Louisiana	60.8
Vermont	7,794	9,118	85.5	46	Tennessee	60.7
Virginia	68,885	97,117	70.9	47	Florida	60.3
Washington	61,475	87,671	70.1	48	Mississippi	59.1
West Virginia	20,772	26,489	78.4	49	South Carolina	58.9
Wisconsin	63,837	83,323	76.6	50	Georgia	57.2
Wyoming	6,389	9,002	71.0	51	Arizona	54.9

Data Sources: (1) 1999 Population Estimates, U.S. Census Bureau.
(2) Digest of Education Statistics 2001, National Center for Education Statistics, U.S. Department of Education.

Total High School Graduates (Private and Public Schools) and Graduation Rate as a Proportion of the 18-Year-Old Population, 1998-1999

State	Total HS Degrees	18 Years Pop. (1999)	Grad. Rate (18 Year Olds)	Rank	State	Grad. Rate
United States	2,761,629	3,874,801	71.3		United States	71.3
Alabama	40,568	64,618	62.8	1	Vermont	92.1
Alaska	7,055	10,839	65.1	2	Connecticut	87.6
Arizona	38,127	68,287	55.8	3	Nebraska	85.9
Arkansas	28,216	37,978	74.3	4	Minnesota	85.3
California	327,318	480,874	68.1	5	North Dakota	85.1
Colorado	39,428	60,536	65.1	6	New Hampshire	84.8
Connecticut	33,425	38,157	87.6	7	Iowa	83.6
Delaware	7,635	10,118	75.5	8	Pennsylvania	83.1
District of Columbia	3,906	5,635	69.3	9	Maine	82.6
Florida	115,252	181,969	63.3	10	Massachusetts	81.7
Georgia	66,046	112,928	58.5	11	Maryland	81.3
Hawaii	12,247	16,959	72.2	12	Wisconsin	80.4
Idaho	16,175	22,435	72.1	13	West Virginia	80.0
Illinois	129,208	171,088	75.5	14	New Jersey	79.1
Indiana	63,505	86,793	73.2	15	Montana	78.8
Iowa	37,071	44,329	83.6	16	Rhode Island	77.4
Kansas	30,756	41,897	73.4	17	Ohio	77.0
Kentucky	41,176	58,820	70.0	18	Utah	75.7
Louisiana	46,518	74,459	62.5	19	Illinois	75.5
Maine	14,143	17,118	82.6	20	Delaware	75.5
Maryland	53,810	66,155	81.3	21	Wyoming	74.4
Massachusetts	61,097	74,794	81.7	22	Arkansas	74.3
Michigan	103,239	141,711	72.9	23	Missouri	74.1
Minnesota	60,974	71,513	85.3	24	Oklahoma	73.8
Mississippi	27,847	46,139	60.4	25	Kansas	73.4
Missouri	59,382	80,117	74.1	26	South Dakota	73.3
Montana	11,320	14,358	78.8	27	Indiana	73.2
Nebraska	22,853	26,599	85.9	28	Washington	73.0
Nevada	14,531	22,467	64.7	29	Michigan	72.9
New Hampshire	13,145	15,500	84.8	30	Virginia	72.5
New Jersey	78,482	99,262	79.1	31	Hawaii	72.2
New Mexico	18,678	27,940	66.9	32	Idaho	72.1
New York	165,740	235,245	70.5	33	New York	70.5
North Carolina	64,337	99,391	64.7	34	Kentucky	70.0
North Dakota	8,836	10,387	85.1	35	District of Columbia	69.3
Ohio	124,506	161,749	77.0	36	California	68.1

State	Total HS Degrees	18 Years Pop. (1999)	Grad. Rate (18 Year Olds)	Rank	State	Grad. Rate
Oklahoma	38,191	51,779	73.8	37	Texas	67.4
Oregon	30,621	47,326	64.7	38	New Mexico	66.9
Pennsylvania	130,634	157,286	83.1	39	Colorado	65.1
Rhode Island	9,583	12,389	77.4	40	Alaska	65.1
South Carolina	34,410	57,255	60.1	41	North Carolina	64.7
South Dakota	9,199	12,553	73.3	42	Oregon	64.7
Tennessee	47,540	76,032	62.5	43	Nevada	64.7
Texas	213,381	316,712	67.4	44	Florida	63.3
Utah	32,366	42,755	75.7	45	Alabama	62.8
Vermont	7,794	8,467	92.1	46	Tennessee	62.5
Virginia	68,885	94,969	72.5	47	Louisiana	62.5
Washington	61,475	84,178	73.0	48	Mississippi	60.4
West Virginia	20,772	25,976	80.0	49	South Carolina	60.1
Wisconsin	63,837	79,376	80.4	50	Georgia	58.5
Wyoming	6,389	8,584	74.4	51	Arizona	55.8

Data Sources: (1) 1999 Population Estimates, U.S. Census Bureau.
(2) Digest of Education Statistics 2001, National Center for Education Statistics, U.S. Department of Education.

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